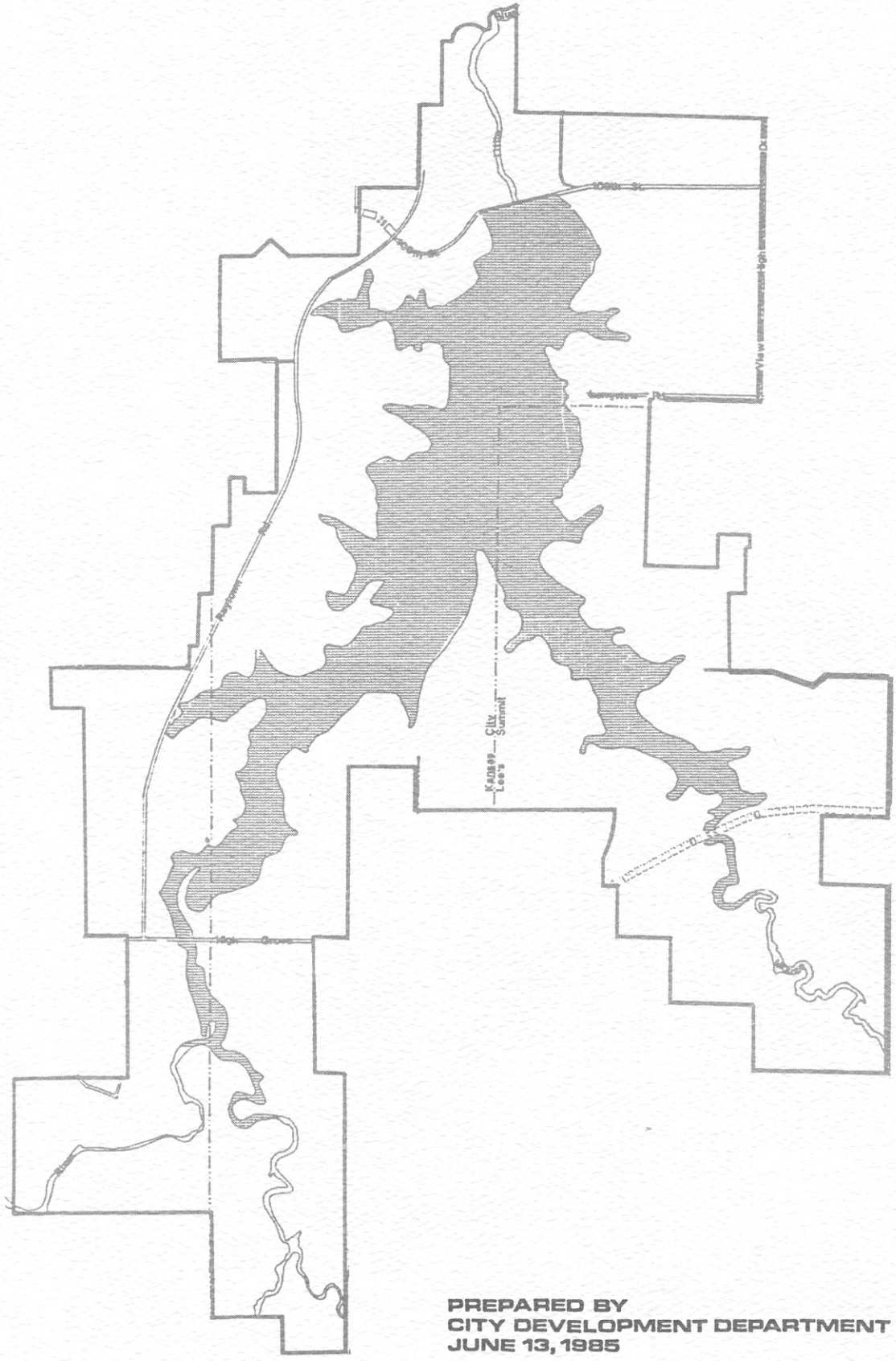
LONGVIEW LAKE
LAND USE PLAN



PREPARED BY
CITY DEVELOPMENT DEPARTMENT
JUNE 13, 1985

LONGVIEW LAKE LAND USE PLAN

Prepared by

Bucher, Willis & Ratliff
Consulting Engineers, Planners & Architects

For the City of Kansas City, Missouri
City Development Department
in cooperation with
the City of Grandview, Missouri
and the City of Lee's Summit, Missouri

THIS ORDINANCE EFFECTIVE
10 DAYS AFTER PASSAGE

SECOND COMMITTEE SUBSTITUTE FOR ORDINANCE 57100

AN ORDINANCE

APPROVING THE LAND USE PLAN FOR THE LONGVIEW LAKE AREA AS A GUIDE FOR FUTURE DEVELOPMENT FOR THE LONGVIEW AREA BEING THAT PART OF KANSAS CITY GENERALLY SURROUNDING THE LONGVIEW LAKE WHICH IS GENERALLY BOUNDED ON THE NORTH BY BANNISTER ROAD, ON THE WEST BY BENNINGTON AVENUE, ON THE SOUTH BY COUNTY LINE ROAD (SOUTH LINE OF JACKSON COUNTY) AND ON THE EAST BY NOLAND ROAD.

WHEREAS, the City Development Department has conducted a study delineating the characteristics of the Longview Lake Area; and

WHEREAS, said study contains approximately 30 square miles and encompasses parts of three cities, Kansas City, Grandview and Lee's Summit; and

WHEREAS, as a result of said study, the City Development Department has proposed a framework for the orderly development within said area; and

WHEREAS, the approval of a plan is an integral part of the general development district for said area; and

WHEREAS, the City Development Department has incorporated its findings in the Longview Lake Land Use Plan; and

WHEREAS, legal notice of the hearing before the City Plan Commission was published March 19, 1984, in conformity with state and local law; and

WHEREAS, the City Plan Commission did hold a public hearing on said Plan on April 3, 1984, and did continue said hearing; and

WHEREAS, the City Plan Commission did recommend approval of the Land Use Plan for the Longview Lake Area on September 18, 1984; and

WHEREAS, the City Plan Commission recommends that the City Council approve the Land Use Plan for the Longview Lake Area as a guide for future development within that area surrounding and adjacent to Longview Lake bounded by I-470 on the north and extending to the Jackson County-Cass County Line; and

WHEREAS, after further consideration, the Council has determined that it is necessary to modify the plan recommended for approval by the Commission; and

WHEREAS, Section 65.205 III of the zoning request requires adoption of a general development and land use plan by ordinance; and

WHEREAS, all public hearings and notices required thereby have been heretofore given and had; NOW, THEREFORE,

BE IT ORDAINED BY THE COUNCIL OF KANSAS CITY:

Section 1. That the Land Use Plan for the Longview Lake Area as prepared by the City Development Department and adopted by the City Plan Commission on September 18, 1984, and as further modified by the Council, be and the same is hereby adopted by the Council as a guide for development of that area described therein. A copy of said plan is on file in the office of the City Clerk under Document No. 57100, and is incorporated herein by reference.

Section 2. That the Council finds and declares that before taking any action on the proposed Plan, all public notices and hearings required by law have been given and had.

I hereby certify that the foregoing was duly advertised and public hearings were held.

Secretary, City Plan Commission

Approved as to form and legality:

Assistant City Attorney

Authenticated as Passed

RICHARD L. BERKLEY, Mayor

E. Richard Brenneman City Clerk

By Ellen L. Tigler Deputy City Clerk

JUN 13 1985

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SUMMARY

LONGVIEW LAKE LAND USE PLAN

The Longview Lake Land Use Plan is intended as a guide for future development within the area surrounding and adjacent to Longview Lake. The planning area contains about 30 square miles which is bounded on the north by Bannister Road, on the west by Bennington Avenue, on the south by Country Lane Road (south line of Jackson County) and on the east by Noland Road. The land use plan is based as a detailed evaluation of existing conditions, area trends, market analysis and recommendations contained in the following chapters of this report which was prepared by Bucker, Willis and Ratliff Consulting Engineers, Planners and Architects.

The land use plan was initiated for the following purposes:

1. Protect public improvements in major public facilities (Longview Lake).

2. Promote orderly growth and development.

3. Prevent overcrowding of land.

4. Promote good design and arrangement.

5. Promote health, safety and welfare.

6. Promote wise expenditures of public funds.

The Longview Lake Land Use Plan is a comprehensive set of land use recommendations to guide the development of the Longview Lake area. This plan is intended for the purpose of maximizing long-term utilization of the recreational and aesthetic assets of the Lake. A public facility such as Longview Lake represents an important resource and a unique opportunity for the communities in southern Jackson County. The intent of this report, therefore, is to establish development guidelines based on long-range planning which take advantage of the development opportunities yet protect this resource for future generations.

To accomplish this goal, this plan is designed to achieve several specific objectives:

1. To ensure that future development is consistent with and takes advantage of the area's environmental limitations and opportunities;

2. To ensure that future development plans are reasonably consistent with anticipated market demand;

HOUSING UNITS

1980	8,600
1990	11,360
2000	15,380

INCOME

	Per Capita	Per Household
1985	10,977	32,900
1990	13,252	39,087
1995	15,534	44,983
2000	17,813	50,410

MARKET CONDITIONS

Land marketing in the area around Longview Lake will go through five (5) phases.

1. Land speculation (construction start to finish).
2. Land construction (four to five years).
3. Recreation period (life of lake).
4. Economic transition (tourist serving activities).
5. Lake home development period.

Market Studies show:

1. One neighborhood shopping center can be supported by year 2000 for residents of area.
2. Lake visitors will require:
   - 2 Restaurants
   - 3 Quick Food Stores
   - 0 Grocery
   - 0 Motels
   - 0 Service Stations
   - 0 Boating Facilities (this provided by lake)

PHYSICAL CHARACTERISTICS

Physical characteristics examined in the Longview Lake planning area include environment, utilities and services. Examination and evaluation of the characteristics are contained in the following paragraphs.

ENVIRONMENTAL CHARACTERISTICS

Physical and environmental characteristics most relevant to the development of the Longview Lake Planning Area were examined because they explained the nature of each environmental constraint, the location of each occurrence and the affect of each characteristic on the development of the area. Specifically, four environmental characteristics were examined: topography, floodplains, drainage patterns and soils.

The folly of ignoring or misunderstanding environmental constraints has been demonstrated repeatedly throughout history. Although substantial advancements in knowledge and technology have increased our ability to counter environmental hazards dramatically, there are still an abundance of recent examples which illustrate the continuing conflict between man and nature. These examples range from the commonplace -- such as cracked foundations or flooded basements -- to the catastrophic -- such as mudslides or major floods.

Although most limitations to development can be overcome by technological solutions, the enormous additional cost to both the public and private sectors makes this a very cost-inefficient alternative. Instead, it is preferable to limit the development of an area to those uses, densities and subdivision patterns most compatible with the area's environmental characteristics. This strategy not only minimizes development costs, but encourages the maximum use of environmental attributes.

Topography

Development can be affected by topography in several ways. First, excessively steep slopes cause construction costs to increase significantly and buildings erected on such slopes may be unsafe. Second, even more modest slopes may be incompatible with those uses requiring relatively level sites. Finally, topographic characteristics determine drainage patterns which, in turn, effect the design and cost of sanitary and storm sewer systems. This final factor will be discussed at greater length in other sections of this report; thus, this section will focus only on the first two factors.

In general, normal construction techniques are not suited to slopes exceeding 15 to 20 percent. For this reason, it is recommended that urban development be avoided on any slope exceeding that standard. This will minimize the probability of building or foundation damage due to soil

west and north.

Drainage Patterns

The planning area is located in the upper reaches of the Little Blue drainage basin and has a relatively dissected drainage pattern consisting of many small drainageways separated by narrow, finger-like ridges. It is separated from adjacent watersheds by major ridges running north-south along Blue Ridge Boulevard, east-west through the northern part of Belton, and northeast-southwest through the southeast corner of the planning area.

Due to its location in the upper reaches of the drainage basin, most of the drainageways are short and serve a relatively small area. This means that boxes, culverts and other drainage structures will be relatively inexpensive to construct. The exceptions are the Little Blue River, Lumpkins Fork, Mouse Creek and Cedar Creek. These may well serve as natural boundaries between subdivisions, crossed only by major streets.

It is generally preferable for drainageways to be open and unpaved unless safety or functional reasons dictate otherwise. This not only drastically reduces the cost of the drainage system, but also allows for increased absorption of stormwater runoff. It may be necessary, however, to modify drainageway design to minimize the amount of erosion. Without such measures, the increased runoff from urban development could accelerate the erosion process.

In addition to these relatively minor development constraints, the drainage pattern offers an important development opportunity. Since the majority of the drainageways lead toward Longview Lake, they could be used as non-vehicular pathways to the park facilities from adjacent residential areas. This type of circulation system has two particular advantages. First, a direct path to recreational facilities can be provided which is separate from vehicular traffic, thus minimizing pedestrian/vehicular conflicts. Second, a functional use can be provided for land which is otherwise only marginally useable. Although this system may not be feasible or desirable in every case, its potential benefit is large enough that it should be considered during the subdivision review process wherever applicable.

Soils

Since the soil is the foundation of nearly all man-made structures, it is perhaps the most basic environmental concern. In general, the soils in the Longview Lake area are predominantly silty loams and silty clay loams similar to soils throughout the metro area. To facilitate a more detailed analysis, it is helpful to divide area soils into three groups. The first group is located along river valleys and consists primarily of alluvial soils. The second group is located on valley side-slopes and contains soils formed from the erosion of the underlying shale and limestone. The third group is located generally along the ridge lines and includes predominantly wind-laid soils.

Land Use Inventory

The land use inventory identifies current uses of land throughout the planning area on a parcel-by-parcel basis. All field data was aggregated into the following categories:

1. Residential
   a. Single-Family
   b. Multi-Family

2. Commercial

3. Public and Semi-Public

4. Parks and Open Space

5. Streets and Highways

6. Agricultural and Vacant

The results of the land use inventory are shown in Table 1. As would be expected, the planning area is predominantly undeveloped. Of the 18,902 acres in the total project, nearly 74 percent are either vacant, used for agricultural purposes or are included within the Longview Lake boundaries. Of the land that is developed, nearly 70 percent of it is residential. Most of the remaining uses are oriented toward neighborhood services.

Ridge Boulevard, and on View High Drive south of Bannister Road.

Most of the land in the public and semi-public category is used for schools and churches. These uses are scattered throughout the residential neighborhoods which they serve. Similarly, the 270 acres of park land and open space consists of several small neighborhood parks located in residential areas.

Commercial development in the planning area is extremely limited. The 80 acres in this category represent less than one-half of one percent of the total area. The majority of this land is located along Blue Ridge Boulevard although several small commercial uses are scattered throughout the area. There has been no industrial development in the study area.

Land Use Distribution

In addition to the quantity of each land use, it was important to examine geographical distribution. In general, this distribution pattern reflects the influence of Grandview and the Hickman Mills area on Kansas City. The vast majority of the developed land within the planning boundary is located in these two areas. In fact, that portion of the planning area located west of the Lake boundary is largely urbanized.

East and south of the Lake the land uses are predominantly rural. As is common in most undeveloped areas, the few uses that do exist, tend to cluster in rows along highways and county roads. This area also contains Longview Community College, the largest single use in the public and semi-public category.

Planning Implications

There are several notable features of the existing land use pattern. First, the character of development west of the Lake is already largely determined. Not only is this area substantially developed, it is also very uniform in its development pattern. Thus it is not likely that future development will differ markedly from past practices.

Second, Longview Lake is the only existing use likely to significantly spur the demand for additional development. Although future residential development will probably provide incentives for additional commercial services, the Lake will undoubtedly be the dominant force in determining future development patterns.

Third, if development of the planning area is to proceed at the predicted pace, supporting uses, such as hospitals, schools, shopping facilities and employment opportunities must occur simultaneously.

Finally, the form which development has taken in the rural areas may unnecessarily distort future development patterns. Several of the major intersections on Highway 150, for example, would be difficult to develop

Longview Lake. The table also compares the accessibility through these highways to the lake.

Table 2

LONGVIEW LAKE HIGHWAY ACCESSIBILITY COMPARISON

Name of Highway	Number of Lanes	Present ADT*	Design Route Capacity ADT*	Number of Access Points to Reservoir	Distance to Reservoir	Potential for Reservoir Traffic Usage
I-470	6	15,000	87,000	1	1 Mile	High
U.S. 71	4	62,200	55,000	2	1-3/4 Mile	Low
U.S. 150	2	4,100	10,000	1	1-1/2 Mile	Low

*ADT - Average Daily Traffic

Service Roadway System

Quality of the service roadway system adjacent to Longview Lake generally has a strong impact in the usage of any particular roadway facility for access. A field inspection and survey revealed that the alignment and physical features of the existing roadway system in the Longview Lake area are not in a satisfactory condition. Raytown Road, which interchanges with I-470 at the north and intersects with U.S. Highway 150 at the south, is the only north-south thoroughfare in the area. Raytown Road provides access to Longview Lake and most of the population north of I-470 and east of I-435.

Other north-south roadways which provide access to the lake are James A. Reed Road, View High Drive, and Lane Avenue. They are accessible to the north end of the Lake. Kelly Road and Peterson Road, provide accessible south of the Lake. James A. Reed Road appears to have the potential for accommodating Lake traffic because it is an adequate roadway facility and it connects the area south of I-470 with the highly populated area north of I-470. Other north-south roadways will be less attractive to motorists entering and exiting the Lake, due to their physical locations and the quality of service.

In addition to the two major east-west highways in the vicinity of the Lake, the area is accessible through numerous east-west roadways. However, none of the east-west roadways provide integral accessibility between the east side and west side of the Lake at the present time. Two east-west roadway links -- Longview Road and Bowman Road link, and Highgrove Road and Scherer Road link -- do provide a certain degree of east-west travel continuity. Other east-west roadways in the Lake area are 107th Street and Pittenger Road to the west, and Chipman Road and Hook Road to the east.

2) 109th Street has been constructed as a four-lane divided roadway connecting View High Drive to the east and the new Raytown Road relocation to the west. 109th Street is the road which crosses the Longview dam.

3) View High Drive has been improved to a four-lane divided roadway with a 15-foot median and separate left turn lanes from 109th Street south to Longview Road. That portion of View High Drive north of 109th Street, however, will remain an 18-foot wide facility.

4) The Highgrove Road-Scherer Road link will be widened and relocated south of the Lake, from the relocated Raytown Road, to a point on Scherer Road approximately 1/4-mile east of Sampson Road. The new facility will be a four-lane divided roadway with a 15-foot wide median. Both Highgrove Road and Scherer Road, outside of the improvement limits, will remain as they are.

5) Longview Road from U.S. Highway 71 to the relocated Raytown Road will be improved to a four-lane facility. (The construction plans are being prepared at the present time.)

These roadway improvements will substantially upgrade the internal traffic circulation around the north, west and south sides of the Lake, accommodating the major activity of the Lake area. Roadways on the east side of the Lake will not be improved from their present condition between Bowman Road and Scherer Road. Improvement on this internal linkage will be warranted if the area east of the Lake is developed.

In spite of improvements in the internal circulation, potential access problems exist at major external connecting links between the lake and major highways. Raytown Road between I-470 and 109th Street -- a one-mile roadway which will remain a 20-foot wide pavement -- is likely to cause the most critical traffic operational problem during the peak usage of the lake. It should receive the highest priority for improvement if additional roadway enhancements around the lake area are to be implemented.

PUBLIC UTILITIES AND SERVICES

The most significant factors which will influence the types and rates of development around Longview Lake will be the availability of public utilities and services. In particular, the adequacy of the water supply, sewage collection and treatment and fire protection was carefully examined when laying the course for this development plan. Likewise, that development which does occur will create a demand for these services. Once a course of development is set, planning for these services can be anticipated.

times. This may require modification of construction techniques, an increased use of automatic fire protection systems, or simply an acceptance of lower service levels. It may also require that high value development be delayed until additional facilities are provided.

When the area develops fully two locations should be considered for new stations. The first should be south of the Lake between Scherer Road and Highway 150. The second possible location would be north of the Lake in the general vicinity of Raytown Road and Bannister Road.

Sewage Collection and Treatment

Levels of Service: An urban area should be served with public sewer systems exclusively. Soils in most of the Kansas City metropolitan area cannot absorb the quantity of effluent that would be generated by individual sewage systems in an urban density. Groups or shared private sewage systems could provide adequate sewage treatment, but maintaining and monitoring them would be a persistent problem to lot owners and the communities that would suffer from their malfunction. As a general rule, public sewage systems are the least expensive and most efficient way of dealing with wastes.

Sewage systems consist of two major components -- collection and treatment. Both should be designed to accommodate maximum expected loads. Collection systems or sewage lines should be sized to carry wastes from the entire area it is intended to serve when that area is fully developed. Treatment facilities should be designed to ultimately treat peak loads anticipated over its life (usually 30 years).

Finally, gravity flow sewage systems should be used whenever possible. Expensive lift stations and force mains should be avoided. This means that development should connect to sewage lines within the same drainage basin.

Existing Facilities: The entire planning area is within the Little Blue drainage basin. This basin is currently served by a 48-inch sewer main which runs along the valley floor. This main is part of a public system under the jurisdiction of the Little Blue Sewer District. Almost every subdivision in the basin is connected to this system. Most of the scattered rural development in the area is on private septic tank systems.

The sewer district is currently constructing a new 54-inch main in this basin which was designed to accommodate waste flows from this area when it is fully urbanized including recreational demand.

The northeast corner of the planning area, which drains towards Cedar Creek and then into the Little Blue line, is sewered with a 21-inch main which also services all of west Lee's Summit.

Simultaneous with the construction of the new Little Blue interceptor, the district is having built a 40-million gallon per day treatment plant along the Missouri River at Atherton. When completed, this new facility

A second function of treatment facilities is to pump this clean water into the distribution system. The further the treatment plant is from the ultimate user, the less pressure it can provide. To supplement this purpose of the water plant, pumping stations and water towers are placed in the water distribution system to increase pressure. Every home on an urban water system should be provided 15 to 20 pounds of water pressure.

Storage facilities provide a water supply when peak demand exceeds treatment plant pumping capacity or when a fire creates extraordinary supply demand. In addition, when this storage is elevated, it supplements treatment plant pressure and provides an emergency supply when other pumping facilities fail (such as during power outages). As a general rule, urban areas are supplied with elevated storage capabilities equivalent to an average day's water demand. If large pumping facilities and water mains are available, however, this storage capability becomes less crucial.

The distribution system consists of water lines of adequate size to carry required water supplies and maintain water pressure. In an urban area these requirements can usually be met by looping major water lines around each square mile of development. Lines of 12 to 16 inches in diameter arranged in such a pattern can then be connected to smaller lines (preferably at least 6 or 8 inches in diameter) to run along all streets.

Existing Facilities: The water supply and water treatment to this area is provided by Lee's Summit and Kansas City. Both are adequate to meet the development needs of the Longview Lake area for the next twenty years.

Storage facilities in this area are limited to a single elevated tank located at Norridge Road and Highway 150 in the southeast corner of the planning area. Its capacity is 60,000 gallons which means it can serve about 600 residents (or approximately 200 homes).

It should be noted that although the entire area is deficient of elevated storage facilities, pressure is maintained with a pumping station at Blue Ridge Boulevard, north of 115th Street (Ruskin Pumping Station). Another such facility is planned on Highgrove Road adjacent to the Lake which will maintain pressures for development south and southwest of the Lake.

The water distribution system is currently being improved along with the construction of the Lake. The new system will provide a 20-inch water main along Raytown Road. This main will connect into an existing 6-inch line in the developed part of northeast Grandview. This 6-inch line is planned to be replaced with a 24-inch main and will then provide excellent service to this area and the recreational areas of the Lake. This new line will also connect into existing water lines on the east side of the Lake in Lee's Summit and will also eventually connect to the area south of the Lake in Kansas City. These east and south existing lines, however, are only 4, 6 and 8 inches in diameter and designed to serve the existing rural populations and perhaps a moderate amount of urban development. A new

TREND ANALYSIS

A trend analysis provides understanding of what has happened in an area and insight in forecasting future trends in an area. The rate of population growth, income levels of residents and employment patterns all have implications for future development patterns.

It is important to point out that projections are far from foolproof. The technique used in this report assumes that the forces which determined population, income and employment trends in the past will continue to influence them in the future. In order to maximize the usefulness of the following projections, the assumptions upon which they are based will be stated as explicitly as possible.

It is anticipated that Lake development will not significantly alter growth trends in the southern part of Kansas City. Rather, it should encourage an adjustment in location from nearby areas demonstrating historic growth trends to the Longview Lake area. It is anticipated that population will increase at an average annual rate of 2.65 percent, increasing from 25,289 in 1980 to 42,669 by the year 2000 (an increase of 17,380 people). Further, the nature of development is not anticipated to change and will be concentrated for the most part in single-family dwellings. It is assumed that family size will decrease from its relatively high level of 3.07 persons to 2.83 persons and there will be an increase of 6,781 new units to house these additional families. It should be noted, however, that these forecasts are simply the best estimate of what is likely to happen in the future. The speculative nature of urban development and the small size of the planning area make any forecast of population growth extremely difficult. It is possible that the actual change in population will be either significantly higher or lower than the forecasts shown here.

Income is expected to follow a growth trend similar to that of the rest of the city. Although one is tempted to argue that housing development around the Lake will be the result of a demand from upper-middle income people, the lack of shore development should discourage that trend. Rather, it is anticipated that income will follow the metro norm, increasing from $8,302 per capita in 1979 to $17,813 by the year 2000.

Since the Longview Lake area is projected to develop as a residential area, employment trends are expected to follow residential-serving job categories; that is, predominantly retail service sector-related. Excluding employment in agriculture, mining, and manufacturing, overall employment is projected to increase from 1,806 in 1980 to 3,061 by the year 2000 (a 2.67% annual rate). Lake-related employment growth is anticipated to be insignificant, adding only 84 new jobs to the area economy (assuming a 100% capture rate).

The first step of the process calculates the rate at which the planning area is expected to grow. Because of I-470, the Lake, and the new sewer lines, it is assumed that growth in the planning area will be as rapid as growth in surrounding communities; even though it has not kept pace in the past. The result, as shown in Table 5, is an annual growth rate of 2.65 percent.

The second step applies this growth rate to the current population of the planning area. Since 1980 population data is not available for the specific planning area boundaries, data from those Census tracts most closely approximating the planning area has been used. These projections are shown in Table 6.

Table 5

GROWTH RATE OF SURROUNDING AREA

	Population 1970	Population 1980	Population Change	Annual Rate
Grandview	17,456	24,519	+ 7,063	3.46%
Lee's Summit	16,230	28,718	+12,488	5.87%
S. Kansas City[1]	16,972	15,872	- 1,100	-0.67%
Belton	12,270	12,668	+ 398	0.32%
TOTAL	**62,928**	**81,777**	**+18,849**	**2.65%**

[1]The South Kansas City category includes all of the Census tracts in Kansas City which are either wholly or partially in the planning area (129.02, 132.01, 132.02 and 134.04). Source: Bucher & Willis.

Table 6

POPULATION AND HOUSING UNIT PROJECTIONS
LONGVIEW LAKE PLANNING AREA1

	Total Population	Population Change	Persons Per Household	Total Housing Units[2]	Housing Units Change
1980	25,289	----	3.07	8,598	---
1985	28,822	+ 3,533	3.01	9,767	+ 1,169
1990	32,849	+ 4,027	2.95	11,358	+ 1,591
1995	37,438	+ 4,589	2.89	13,213	+ 1,855
2000	42,669	+ 5,231	2.83	15,379	+ 2,166
TOTAL		**17,380**			**6,781**

[1]This includes Census tracts 129.02, 132.01, 132.02, 133.03, 134.04, 134.01, 134.06, 135.00 and 136.00.
[2]Housing units are equal to population divided by persons per household, plus 2% vacancies. Source: Bucher & Willis.

Table 8

PER CAPITA INCOME TRENDS & PROJECTIONS
KANSAS CITY, S.M.S.A.*

Historic Trends		Projections	
1969	$ 3,973	1985	$10,977
1970	4,185	1990	13,256
1971	4,498	1995	15,534
1972	4,871	2000	17,813
1973	5,338		
1974	5,801		
1975	6,400		

*Source:1969-1976, Bureau of Economic Analysis; 1979, Bureau of the Census estimate.

EMPLOYMENT

The Longview Lake area has not been a major employment center in the past, nor is it expected to be one in the future. Due to losses of employment in manufacturing and transportation, communication and public utilities, and stability in other employment categories, employment declined through the mid-1970's.

Table 9

HISTORICAL EMPLOYMENT PATTERNS[1]

Total Employment

	1973	1974	1975	1976	1977	Average
Agriculture	35	32	36	42	39	36.8
Mining	8	7	7	7	7	7.2
Construction	77	102	98	98	91	93.2
Manufacturing	102	96	99	30	29	71.2
T.C.P.U.	77	11	8	8	11	20.6
W-Sale Trade	31	25	41	50	56	40.6
Retail Trade	336	337	306	334	331	328.8
F.I.R.E.	53	62	36	39	45	47.0
Services	592	574	599	612	555	586.4
Government	71	72	72	55	72	68.4
TOTAL	**1,382**	**1,318**	**1,302**	**1,275**	**1,236**	**1,300.2**

[1]Employment figures are for Census tracts 129.02, 132.01, 132.02, 134.04 and 135.00. Source: Mid-America Regional Council.

Employment growth as a result of lake-related demand is anticipated to be small, at least in that area outside of the lake boundary. The market analysis and forecast shows that demand generated from lake visitors will be significantly concentrated in eating establishments. It must remembered and understoodd that recreation-related services are seasonal at best. Thus, with projected increase of six establishments concentrated in food-serving industries, anticipated additional employment should not exceed 84 new jobs (State of Missouri, 1977, 6,043 eating establishments with 83,205 paid employees, yields approximately 14 employees/establishment). Further, this demand is not anticipated to change over time assuming the Lake will quickly achieve peak visitation and then remain relatively constant.

MARKET ANALYSIS

Two market forces will affect the growth of developments in the Longview Lake area: 1) tourism or lake-oriented recreation demand, and 2) residential and associated commercial demand. In order to understand the relative importance of each of these factors, the unique nature of metropolitan lake development and associated market forces must first be understood. In general, there are four forces at work:

(1) Metropolitan versus non-metro lake development;
(2) Corps of Engineers versus natural and private lakes;
(3) Actual versus perceived demand; and
(4) Overall area development patterns.

Metro Versus Non-Metro Lakes

In general, the ability of recreational resources such as Longview Lake to draw visitors is directly proportional to the appeal of the resource and indirectly proportional to its distance from the population. Thus, with no particularly unique attributes, in a location other than in a metropolitan setting, a small lake like Longview Lake has limited drawing power. However, because of its location, the Lake will probably have little trouble attracting the projected 1,120,000 annual visitors and may in fact have to impose use or visitation limits.

Corps Versus Private Lakes

Probably the most significant growth limitation placed on a lake, in terms of property development, is shoreline restrictions. Restricting development along the shoreline significantly decreases the attractiveness of the resource to property developers since they find it more difficult to sell the unique attribute of the resource -- immediate accessibility and view.

Thus, residential and concurrent commercial development can happen very rapidly along the shores of privately owned lakes, while around Army Corps of Engineers developed lakes, this activity is much slower to occur. Simply put, the appeal is reduced; therefore. the demand is reduced.

Actual Versus Perceived Demand

An example can best demonstrate the difference between actual and perceived and; or reduced appeal around Corps of Engineers projects. Perry Reservoir, located twenty-five miles east of Topeka, Kansas and forty-five miles west of Kansas City, is a 12,200 surface acre lake developed in 1968. Initially, 150 acres adjacent to the lake were zoned commercially and 3,500 housing lots platted. Ten years later, 150 houses had been built and ten acres of commercial property developed (with many of the commercial establishments now closed). Clearly, this is an example of the difference between actual and perceived demand.

day,[1] an estimate can be made of expenditures by item. Table 11 summarizes the average expenditure per person per item for a typical trip to a federal lake.

Table 11

ESTIMATED EXPENDITURE PER PERSON PER VISIT
LONGVIEW LAKE, 1982

Item of Expense	% of Expense	Distance From Reservoir 0-20 Miles	21-50 Miles
Restaurant	20	$ 0.272	$ 0.644
Quick Food	13	0.177	0.417
Grocery	17	0.231	0.547
Lodging	17	0.231	0.547
Transportation	5	0.068	0.161
Boating	28	0.381	0.902

Table 11 then can be modified to show total expenditures simply by adding visitation. Assuming 85 percent of the projected 1,120,000 visitors[2] average an expenditure of $1.36 per day and the remainder $3.22 per day, the resultant dollars spent can be estimated (Table 12).

[1]Garrison, Charles B., "A Case Study of the Local Economic Impact of Reservoir Construction", Journal of Leisure Research. 1974, (inflated to 1982 dollars).

Table 12

PROJECTED ANNUAL EXPENDITURES
LONGVIEW LAKE, 1982

Item of Expense	0-20 Miles	21-50 Miles	Total
Restaurant	$ 258,944	$ 108,192	$ 367,136
Quick Food	168,504	70,056	238,560
Grocery	219,912	91,896	311,808
Lodging	219,912	91,896	311,808
Transportation	64,736	27,048	91,784
Boating	362,712	151,536	514,248
TOTAL	**$1,294,720**	**$ 540,624**	**$1,835,344**

Commercial Demand

Generally, commercial activities occur in one or more of four kinds of economic centers: the central business district, a shopping center, a strip development, or a neighborhood center. Within a radius of six miles of the intersection of Scherer Road and Raytown South Road, there are eleven commercial centers, totalling 276 stores and 2,257,798 square feet of shopping area. These centers are summarized in Table 14.

Table 14

COMMERCIAL CENTERS IN THE LONGVIEW LAKE AREA

Center	Stores	Sq. Ft.
Bannister Mall	84	1,100,000
Bannister Ridge Shopping Center	10	35,518
Birchwood Shopping Center	8	40,180
Crest Shopping Center	5	16,800
Grandview Plaza	24	95,000
Loma Vista Shopping Center	22	173,000
Longview Square	19	80,000
Robandee Shopping Center	16	90,300
Ruskin Heights Shopping Center	26	85,000
Terrace Lake Shopping Center	10	42,000
Truman Corners Shopping Center	52	500,000
Total 11 Centers	276	2,257,798

With this amount and kind of shopping available within such a short distance, it is anticipated that most shopping demand within the study area boundary will be for neighborhood commercial activities. Table 15 summarizes family expenditures for "typical" neighborhood commercial products.

In terms of institutional development, the Longview Community College ultimately plans to develop a more permanent campus. This will not represent an increase in campus area; however, it will include additional, more permanent facilities. The college now averages a fall and spring semester enrollment of 4,000 students each, and a summer enrollment of 2,000 students. No other major institutional developments are anticipated.

In summary, any office development that occurs in the Longview Lake area will most probably be confined to those generally associated with residential projects, including real estate offices and possibly dental and medical practices. However, very little office development is anticipated.

EFFECT OF GEOGRAPHY ON MARKET DEMAND

In addition to the gross market demand, it is useful to examine the probable distribution of that demand. In particular, there are four geographic characteristics that will shape the demand for future development:

(1) Existing Land Use Pattern: In those areas which have already begun to develop, the character and pattern of existing development will limit the range of uses which can be located on the remaining undeveloped land. Not only does existing development often determine street patterns and utility capacities, but it is also likely to preclude the future development of those uses which might have a negative effect on the useability or value of current uses.

(2) Accessibility: Although all land must be accessible if it is to be used for urban purposes, the nature and degree of each uses requirements for accessibility vary substantially. Some uses, for example, may need to have easy access to the entire metro area, while other uses may need access to only the lake or a residential neighborhood.

(3) Proximity to Major Land Uses: In addition to the general land use pattern, there are certain major land uses which will act as a "magnet" to attract related uses because of their ability to generate a particular type of traffic. Longview Lake and the surrounding park, for example, will generate over a million visitors per year. This, in turn. will attract other uses' at least to a certain degree.

(4) Environmental Characteristics: The final geographic factor deals with characteristics of the land itself which might restrict development opportunities. Of particular importance in this case are topography and drainage patterns.

In order to accurately evaluate the impact on market demand, the factors outlined above were applied to ten sub-areas which, together with the lake and surrounding park, form the full planning area. These subareas

were defined to maximize their homogeneity. A brief analysis of how market demand in each sub-area is likely to be affected is detailed below. The sub-area numbering system begins in the northwest corner of the planning area and proceeds clockwise around the lake.

Area 1: Sub-Area One is in the northwest corner of the planning area, north of Longview Road, west of James A. Reed Road' and south of I-470. This area is almost entirely developed and the existing land uses are limited almost exclusively to single-family residences and related uses such as schools and parks. Access to the rest of the metro area and to the lake is only fair, although the extension of James A. Reed Road will eventually improve access to the lake. Because of the extent and homogeneity of existing development and the relative lack of access, future development in this area is likely to continue to be single-family residences and supporting uses.

Area 2: Sub-Area Two is bounded by I-470 on the north, Area 1 on the west, the park boundary on the south and a line parallel to and a quarter-mile east of Raytown Road. The I-470/Raytown Road interchange gives this sub-area better access to the rest of the metro area than any of the other sub-areas. This feature, in combination with a high volume of lake-oriented traffic and a large proportion of undeveloped land, results in a substantial potential for intensive development. Unfortunately, steep slopes limit development opportunities west of Raytown Road and the floodplain limits opportunities to the east. In addition, both sides have poor visibility from I-470. Thus, it may be difficult to effectively capture this development potential.

Area 3: Sub-Area Three is located in the northeast corner of the planning area, bounded on the south by Chipman Road (107th Street), on the west by Area 2 and on the north by I-470. This area has poor access to the metro area and only fair access to most of the recreational facilities around the Lake. It also has a large proportion of land in the floodplain and a nearly equal amount of land with excessively steep slopes. This combination of characteristics yields a relatively low proportion of developable land and a probable market limited to only low intensity uses such as single-family residential.

Area 4: Sub-Area Four is bounded on the north by Area 3, on the west by the park, on the south by the southern edge of the Longview Farm property and on the east by the planning area boundary. It has good access to the Lake and to Lee's Summit, but poor access to other locations in the metro area. As with Areas 2 and 3, development has occurred in only scattered locations. This area does contain, however, Longview Community College. Although a community college is normally the type of land use which will attract supporting uses, the isolated location, small size and commuter-orientation of its students limits the impact of Longview

elsewhere however, because of its proximity to the lake and the intersection of Raytown, Highgrove and Scherer Roads. Because of limited access to the rest of the metro area, it is probable that the development of this node will consist predominantly of commercial uses oriented toward visitors to the lake and surrounding residential development.

Area 10: Sub-Area Ten is located between the northern boundary of the planning area and I-470. Existing development is predominantly single-family residential, although this sub-area does contain a large apartment complex. The majority of land, however, is currently undeveloped. Access to the rest of the metropolitan area is good due to the interchange with I-470 at Raytown Road and to easy accessibility to Bannister Road from James A. Reed Road, Lane Avenue, Raytown Road and View High Dive. It is probable that the majority of this area will continue to develop residentially. However, the north side of the I-470/ Raytown Road interchange has potential for either retail or office development. Although this location will not be as convenient to lake-oriented traffic as the south side of the interchange, it does have better visibility from the interstate and fewer environmental problems.

LAND USE ALTERNATIVES

The land use plan for Longview Lake area began with the generation of alternative plans, each with its own impact analysis. These alternatives were then refined into a single development plan through a multi-step review and revision process which included both the liaison and coordination with the Longview Lake Committee and the City staff.

Each alternative contained a variety of development ideas dealing with such issues as residential densities, commercial development, and pedestrian and vehicular access.

The recommended land use plan alternative included elements from various alternatives and was viewed as the best solution to the various development issues raised by the project.

UNDERLYING ASSUMPTIONS

It would be possible to prepare nearly an infinite number of future land use alternatives. However, by using commonly accepted planning standards and some basic assumptions about the desired characteristics of future development, it is possible to quickly dismiss most of the alternatives as unacceptable. These underlying assumptions used in the study are as follows:

(1) Longview Lake is an important recreational resource which should be reinforced by the surrounding development pattern rather than weakened by it.

(2) Existing residential areas should be strengthened by severely restricting the encroachment of incompatible uses.

(3) New development should be located in areas where necessary public services are available or can be easily extended.

(4) The design and character of new development should be aimed at providing a convenient, safe, healthy and aesthetically pleasing environment in which to live and work.

Given these basic requirements, there is still a sizeable spectrum of possible alternative plans. The two alternatives described below are intended to "bracket" this spectrum as nearly as possible. Thus, neither plan is necessarily the ideal development plan for the study area, they simply represent a reasonable range of alternatives. It is probable that the final plan will be some combination of the two alternatives presented here.

Although the two future land use alternatives are quite distinct, there are a few similarities. First, the system of major thoroughfares is

(2) Pedestrian and bicycle traffic is separated from vehicular traffic, thus minimizing traffic accidents;

(3) Accessibility to the Lake for area residents is increased; and

(4) The pedestrian and bicycle paths within the park boundaries will be used much more extensively since they are connected to areas outside the park.

Dedications of land for the system would be obtained as adjacent land is developed.

ALTERNATIVE 2

Alternative Two allows a narrower range of uses and restricts development to a lower range of intensities. Commercial development, for example, is limited to neighborhood-type retailing. Community shopping and office development is not proposed within the planning area. The retailing that is allowed is clustered at five carefully spaced nodes. Each node would serve the local needs of the adjacent residential areas. As before, each neighborhood center would be limited to 150,000 square feet of floor area and a 10-acre site.

Residential development would follow much the same pattern as in Alternative 1; that is, low density (three units per acre) housing to the west and south, and even lower density (one unit per acre) housing to the east and north. The major difference between the alternatives is the amount and location of the higher density housing. Alternative 2 limits medium density (eight units per acre) housing only to the areas immediately surrounding the neighborhood shopping centers. This type of layout provides a buffer between the high intensity retail activity and the lower intensity single-family housing. It also provides a greater geographical distribution of medium density units although the total area is less than in Alternative 1.

Except for two important differences, the vehicular circulation system in Alternative 2 is nearly identical with that in Alternative 1. The first distinction is that no new interchange is shown on I-470. The traffic on Sampson Road would be channeled onto 109th Street which would lead to the interchange at Raytown Road and I-470. The second major change is that an extensive network of parkways or boulevards is proposed in Alternative 2. Each part of the parkway system would provide an attractively landscaped entrance into the Lake area, thus extending the image and atmosphere created by the Lake into the surrounding neighborhood. Furthermore, pedestrian/ bicycle trails could be incorporated into the parkway design to provide access of this type to lake facilities.

COMPARISON OF ALTERNATIVES

The primary philosophical difference between the two alternatives centers on the degree of diversity which each allows. Alternative 1 has

RECOMMENDED LAND USE PLAN

The Land Use Plan for the Longview Lake area is a combination of the strongest elements of the two alternative plans. This plan and the development policies in the next chapter are the product of a lengthy planning process.

As with all land use maps it is important not to interpret them too literally. They are intended to indicate general locations, types and quantities of future development, and to give a broad overview of the pattern and character which such development should follow, decisions regarding specific development proposals should be based primarily on the development policies, with the map playing a supplementary role. To do otherwise would unnecessarily restrict the ability of developers to respond to changes in market demand and construction technology.

PLAN CHARACTERISTICS

The recommended land use plan reflects the desire to retain a "balanced" spectrum of land uses proposed in Alternative 1 while limiting the location and controlling the development of intensive uses so as to achieve the character of Alternative 2 plan.

Traffic

The general pattern of circulation remains unchanged from the two alternative plans. James A. Reed Road, Highgrove Road, Scherer Road, Raytown Road and Sampson Road are all shown as parkways. The additional interchange on I-470 and its connecting link to Sampson Road are shown as a possible addition to the major street system. Although this interchange does not appear to be justifiable in the foreseeable future, changing conditions may warrant its construction. An alternative location for the interchange would be at View High Drive, although this is probably less ideal a location than the one indicated.

It is recommended that a system of pedestrian/bicycle pathways be provided and that they follow existing utility easements and major drainageways and should be used to connect the residential areas to Longview Lake and to neighborhood-level school and park facilities. This system should be considered east of the Lake as well, although natural drainage patterns do not form easily identifiable pathways and thus are not shown on the map.

The pedestrian/bicycle pathway planned by the Jackson County Parks Department along the Little Blue River should be designed to connect with the pathway system proposed here and to adjacent recreational and residential uses.

PLAN PHASING

The accompanying map shows the anticipated phasing of development in order to provide some guidelines for the phasing of public improvements. Those areas already served adequately by public facilities are shown for immediate development. This includes the areas west of the Lake and most of the land north of I-470. The second phase of development, beginning between 1985 and 1990, will occur in the southwestern corner of the planning area, south of the Lake between the two arms, and immediately northeast of the Lake. The southern and eastern portions of the planning area are not expected to develop until after the year 2000.

Table 16

LONGVIEW LAKE PHASING PLAN

IMPROVEMENTS TO BE MADE TO ACCOMMODATE DEVELOPMENT

AREA 1

1. Extend water main loops*
2. Extend sewer mains and connect to Little Blue sewer*
3. Widen Raytown Road to four lanes -- I-470 to Bannister*
4. Improve I-470/Raytown Road interchange*

* These items should be completed prior to the construction of office/retail at I-470/Raytown Road.

AREA 2

1. Widen Longview Road to four lanes
2. Extend James A. Reed to Raytown Road
3. Widen Raytown Road to four lanes -- I-470 to Lake property

AREA 3

1. Widen Highgrove Road to four lanes -- Highway 71 to Lake property

AREA 4

1. Widen Highway 150 to four lanes*
2. Connect to Little Blue sewer*
3. Extend water main loops
4. Complete Byars Road

* These items should be completed prior to the construction of retail/multi-family at Byars and Highway 150.

AREA 5

1. Extension of water main loops*
2. Connect to Little Blue sewer*
3. Completion of Scherer Road/Highgrove Road link*
4. Widening of Highgrove Road to four lanes -- Highway 71 to Lake property
5. Widening of Raytown Road to four lanes -- I-470 to Lake property*
6. Widening of Raytown Road to four lanes -- Highway 150 to Lake Property*
7. Construct 139th Street -- Peterson to Raytown Road

* These items should be completed prior to construction of office/retail at Raytown and Highgrove.

AREA 6

1. Extend water and sewer*
2. Widen Highway 150 to four lanes*
3. Extend Raytown Road south to County Line

* These items should be completed prior to construction of retail/multi-family at Highway 150 and Raytown Road.

AREA 7

1. Extend water and sewer*
2. Widen Highway 150 to four lanes*
3. Extend and widen Sampson Road south to County Line*
4. Improve 139th Street

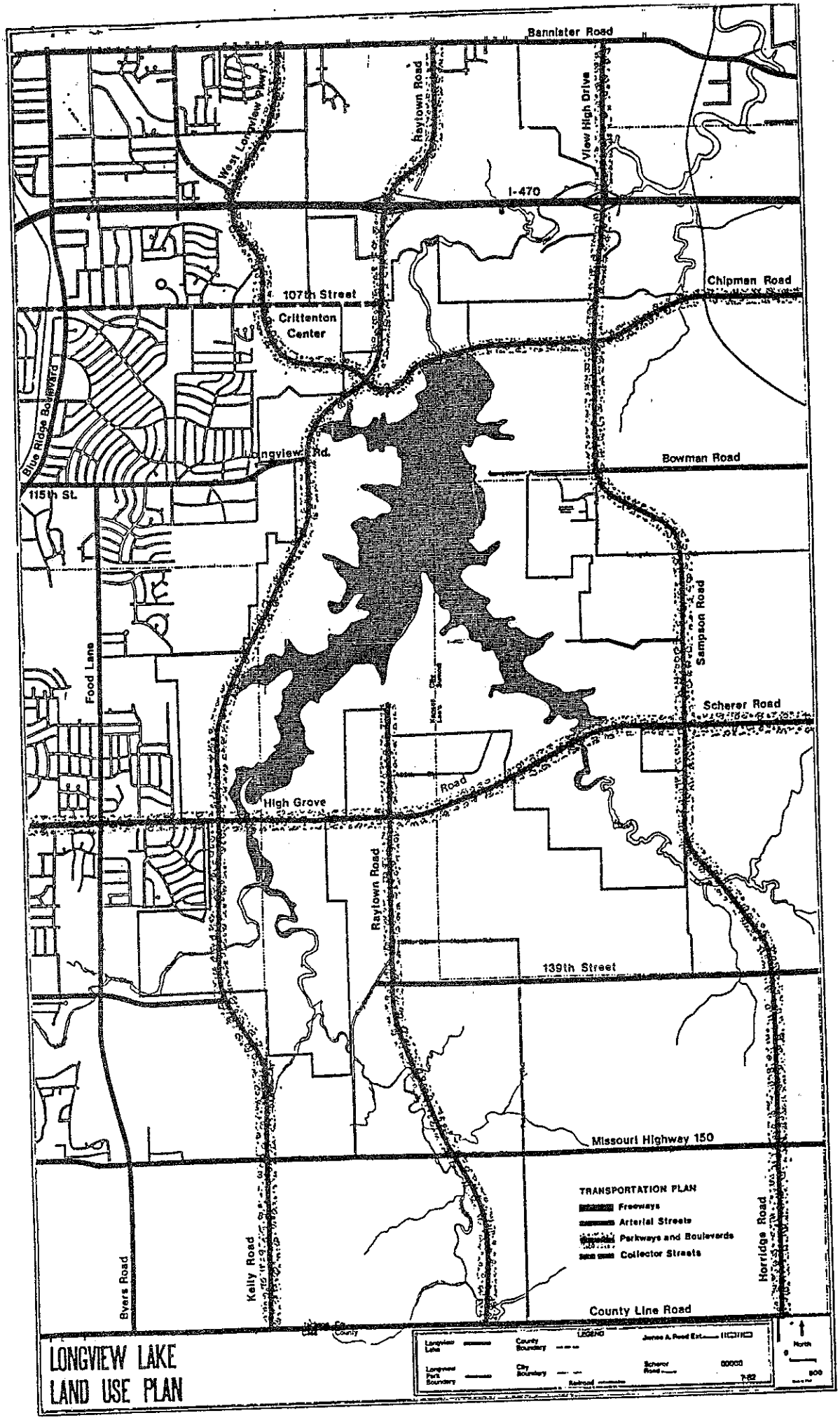
* These items should be completed prior to construction of retail/multi-family at Highway 150 and Sampson Road.

AREA 8

1. Complete Highgrove/Scherer Road link
2. Extend Sampson Road south to Highway 150 and north to 3rd Street
3. Extend sewer and connect to Little Blue system
4. Complete water main loop around Lake
5. Improve Scherer Road east of Lake

AREA 9

1. Complete 109th Street across dam*
2. Extend water and sewers
3. Extend Sampson Road to 3rd Street* (Bowman Road)
4. Extend Sampson Road to 109th Street
5. Improve View High Drive north to Bannister Road



LONGVIEW LAKE
LAND USE PLAN

IMPACT ANALYSIS

The impact analysis point out those improvements which will need to be made and the approximate cost of those improvements. This will assist each jurisdiction in its capital improvement programming and in the implementation of the recommended Land Use Plan.

The impacts reviewed here will be improvements necessitated by the Land Use Plan. These will include major road, sewer, water and fire protection improvements and recreational and open space needs. The size or scale of each improvement will be noted and current prices for installation estimated.

It should be noted that these sizes and costs are rough estimations only. Each estimate will have to be refined when detailed capital improvements or development proposals are submitted.

TRAFFIC

In order for Longview Lake to be fully utilized and for the surrounding property to be efficiently developed, the traffic circulation pattern must be carefully planned. Of all the major infrastructure improvements, circulation improvements are by far the most expensive. Concerns here are the major road system. Local residential streets should be handled as development requests are submitted.

Based on given empirical trip generation data, the land use plan will produce approximately 370,000 trip ends per day (both inbound and outbound) when the area is fully developed. The vast majority of these trips, more than 75 percent, will be generated by the residential development. In addition to this estimated trip generation and attraction, the Corps of Engineers projected that approximately 9,240 visitors can be expected to utilize the lake facility during a peak weekend which will be equivalent to approximately 3,000 vehicles or 6,000 trip ends. It is important to point out that the peak period of the lake traffic generally does not coincide with the peak traffic of the predominantly residential land surrounding the lake.

Future Freeway Planning

The future land use pattern suggests strong traffic exchange between the planning area and the rest of the Kansas City metropolitan area. With the size and type of the ultimate development, an outer south freeway ring at the location of U.S. Highway 150 may be justified. This new freeway facility should provide a minimum of two interchanges serving the planning area, preferably at Raytown Road and Sampson Road. Improvement of U.S. Highway 150 to a freeway standard should have the potential to attract more than 35 percent of the external bound traffic from the entire planning area. The timing of this improvement, however, appears to be beyond the foreseeable future.

the remainder of the planning area, improvement of the access to I-470 and U.S. Highway 71 should be top priority. Adequate internal access and circulation will also require the completion of a four-lane divided roadway loop surrounding the lake. This implies the widening of Raytown Road to a four-lane divided roadway from 109th Street to the I-470 interchange, widening of both Longview Road and Highgrove Road to a minimum of a four-lane facility from U.S. Highway 71 to the relocated Raytown Road (Longview Road improvement has already been scheduled), and upgrading Sampson Road to a four-lane divided roadway from Scherer Road north to 109th Street. This will complete a loop system around the lake. The existing four-lane portion of View High Drive from 109th Street south to Bowman road is not recommended to be included in the loop system; it should only serve as a collector facility connecting Longview Community College and the surrounding land to the arterial system.

To enhance development opportunity and provide adequate traffic capacity for the southern half of the Planning area, both Raytown Road and Sampson Road south of the Highgrove Road-Scherer Road link should ultimately be improved to four-lane divided roadways. Raytown Road should be extended south to the county line and be provided with a freeway interchange with U.S. Highway 150 when it is justified. Sampson Road, located two miles east of Raytown Road, should be extended to U.S. Highway 150 and eventually south to the county line with a four-lane divided facility. Although these two improvements are unlikely to occur in the foreseeable future, these facilities will be vital to the development of the area as a whole.

In addition to the recommended principal arterial streets which serve as connecting links between the planning area and the freeway system, other major streets in the planning area with less regional significance should also be planned. In reviewing the land use plans and their relative traffic generation in the southern half of the planning area, it appears that both 139th Street (an east-west road one mile north of U.S. Highway 150) and Peterson Road (a north-south road one mile west of Sampson Road) should be upgraded to a minimum of a four-lane facility when the area is fully developed. The portion of 139th Street recommended for future improvement will be from Raytown Road east to the east boundary of the planning area, and the portion of Peterson Road recommended for future improvement will be from the relocated Scherer Road south to the county line. These recommended street improvements will comprise an integral part of the major street network in the southern half of the planning area.

The northern half of the planning area will be served primarily by the roadway loop encompassing the periphery of the lake. In addition to the major improvements previously described, James A. Reed Road should be improved to a minimum of a four-lane facility thus providing direct access to the Lake from the area north of I-470 and east of I-435. An adequate James A. Reed Road facility will partially relieve the potential traffic impact at the interchange of I-470 and Raytown Road.

interchange is constructed on I-470, its cost and the cost of the connecting link to Sampson Road is estimated to be an additional $7,715,000.

FIRE PROTECTION

As the planning area continues to develop, there will be an increasing demand for additional fire protection services. This demand could be met either by building additional fire stations or by requiring the private sector to build fire protection systems into new construction.

Because of the high cost of constructing new stations, this alternative is not likely to be justifiable on a cost-benefit basis until the area is largely developed. Even a small two-bay pumper station would cost approximately $300,000 plus an additional $100,000 for each pumper. If new stations were built, the office development along the Scherer-Highgrove Road and the community shopping center on Highway 150 would make the south station the highest priority.

Instead of constructing new stations, it may be preferable to reduce fire risks by requiring new development to incorporate advanced fire detection and suppression systems into new construction. This would allow existing stations to cover a broader service district. It would also provide a high level of protection sooner than the new fire station alternative. Since each new development would be assuming a share of the fire protection responsibility through its method of construction, there would not be any interim period where new development was poorly protected due to delays in constructing a new station.

The cost of constructing and equipping two additional fire stations is estimated at roughly $1,000,000. This could be reduced to zero' however' if private fire protection systems were required in all new construction. Such an approach would cost the private sector an amount equal to roughly one percent of total construction costs.

SEWAGE COLLECTION

The sewage collection system consists of two components both of which connect to the Little Blue Sewer District system. The smaller of these components is the existing 21-inch sewer line along Cedar Creek which now serves a large portion of Lee's Summit and would serve the northeast corner of the lake planning area. The larger component is that of the new 60" main being installed along the Little Blue River itself. This main will serve the remainder of the planning area. All sewer mains which connect into these two components should be of an adequate size to accommodate the wastes generated by their respective drainage areas when fully urbanized.

It is estimated that the total cost per mains and major laterals would be roughly $4,200,000 for the full development of the Longview Lake area.

Table 17

IMPACT ANALYSIS
COST SUMMARY

	Estimated Cost 1984
TRANSPORTATION IMPROVEMENTS	
1. North Raytown Road and I-470 Interchange	$ 1,810,000
2. Longview Road-Highway 71 to Raytown Road	8,500,000
3. Highgrove Road-Bennington to Raytown Road	2,130,000
4. Sampson Road-109th to County Line	7,070,000
5. South Raytown Road-Park Property to County Line	3,584,000
6. Highway 150	9,370,000
7. Peterson Road-Scherer to County Line	2,881,000
8. 139th Street-East of Raytown Road	2,760,000
9. Sampson Road Extension to I-470 Interchange (optional)	(7,715,000)
10. View High Drive-North from 109th Street	508,000
11. Chipman Road-East from View High Drive	1,196,000
12. James A. Reed Road-North from Raytown Road	1,755,000
13. Signalization	920,000
SUBTOTAL	**$42,484,000 to $50,199,000**

GOALS, OBJECTIVES AND POLICIES

Policies for the Longview Lake area were derived from a hierarchy of objectives and overall planning goals. Goals are broad statements which describe the kind of environment which the plan should be aimed toward achieving. Objectives are more specific statements which outline methods for accomplishing a particular goal. Policies are specific recommendations or actions which the appropriate jurisdictions should undertake to achieve the objectives. These policies are the primary implementing tools of the Plan and should be referred to during the decision-making process to identify land use issues.

The goals for Longview Lake are summarized in the following categories:

1. General Development
2. Housing
3. Commerce Development
4. Transportation
5. Public Facilities

Implementation of the Land Use Plan for the Longview Lake area will require the coordination of many political jurisdictions. To assure this coordination, each jurisdiction identified attitudes about the Lake's development. These attitudes will then mediated toward an acceptable set of policies which can be formally adopted. The policies will become the basis for evaluating development proposals, capital improvements or service extensions in a comprehensive manner. The adoption and compliance with the attitudinal statements should help guarantee that planning will continue to occur on a lakewide basis rather than merely on a community-by-community basis.

Mutual adoption and compliance with goals, objectives and policies will lead to the desired pattern of development for the Lake area. If it is agreed, for instance, that a key objective is to preserve the open and pastoral environment in this area, each jurisdiction can apply the same or similar policies in their review of development proposals to bring about the realization of this objective. This could mean requiring increased front yard setbacks along major roads or the uniform implementation of a boulevard system around the Lake. Regardless of what ultimate actions are taken by each community, they will lead to the accomplishment of overall objectives if in accordance with the adopted policies.

GENERAL DEVELOPMENT

PROVIDE AMPLE OPPORTUNITY FOR CONTINUED URBAN DEVELOPMENT AROUND LONGVIEW LAKE WITHIN AN ORDERLY, EFFICIENT AND ENVIRONMENTALLY SAFE PLANNING FRAMEWORK.

POLICY G3.2 - Curb cuts (driveways) onto arterial streets shall be kept to a minimum.

OBJECTIVE G4 - MINIMIZE ENVIRONMENT HAZARDS BY CAREFULLY CONSIDERING NATURAL LIMITATIONS DURING THE DEVELOPMENT PROCESS.

POLICY G4.1 - Medium or high density residential subdivisions and all non-residential development shall consider soil, slope or rock limitations.

POLICY G4.2 - Residential development shall be avoided in the 100-year floodplain. Under no circumstances shall any development be allowed in the floodway.

POLICY G4.3 - Erosion controls should be incorporated into every subdivision plan.

POLICY G4.4 - Office and light industrial development should be designed and constructed to accommodate increases in storm water runoff and reduce flooding problem on properties down stream.

HOUSING

PROVIDE A VARIETY OF HOUSING CHOICES IN THE LONGVIEW LAKE AREA.

OBJECTIVE H1 - RECOGNIZE AND MAINTAIN OR UPGRADE THE RESIDENTIAL CHARACTER OF EXISTING AREAS

POLICY H1.1 - Land uses which will be housed in large structures or will create substantial amounts of traffic, noise or odor, shall be separated, either physically or visually, from single-family areas.

POLICY H1.2 - Buffers, either as intermediate land uses or as sufficient landscaped areas, should be provided between residential and commercial or office uses. Residential and other uses may be buffered from each other by back-to-back placement rather than face-to-face.

POLICY H1.3 - Vacant areas within predominately developed residential areas should be encouraged to be developed in a manner that is similar in character to surrounding residential uses.

POLICY H1.4 - Major streets traversing existing residential areas should be improved as development occurs.

POLICY H1.5 - Support facilities such as parks, schools and convenience shopping areas should be provided.

TRANSPORTATION

TO PROVIDE ADEQUATE ACCESS TO ALL AREAS WITHIN AND AROUND LONGVIEW LAKE.

OBJECTIVE T1 - DEVELOP A MAJOR STREET SYSTEM WHICH WILL PROVIDE THE PRINCIPAL VEHICULAR ACCESS TO RECREATION AREAS AND ACCESS FROM NEIGHBORHOOD TO NEIGHBORHOOD.

POLICY T1.1 - Local streets shall be so aligned, improved and signed to discourage through traffic.

POLICY T1.2 - Communities in the Longview Lake impact area should coordinate street improvements.

POLICY T1.3 - Vehicular access to arterial streets should be limited.

OBJECTIVE T2 - Pedestrian AND BICYCLE ACCESS BETWEEN RESIDENTIAL, RECREATIONAL AND COMMERCIAL AREAS SHOULD BE ENCOURAGED

POLICY T2.1 - Major drainage and pedestrian corridors should be dedicated to the public and improved with a hard surface trail wide enough to accommodate both pedestrians and bicyclists.

POLICY T2.2 - Sidewalks should be provided along all major thoroughfares and along all streets in commercial and office district.

OBJECTIVE T3 - MINIMIZE CONGESTION ON THE MAJOR THOROUGHFARE SYSTEM.

POLICY T3.1 - Major new development should provide deceleration lanes, proper signage and signalization and other traffic improvements as needed to facilitate arterial traffic movement.

POLICY T3.2 - Commercial signing along arterial streets should be kept to a minimum.

POLICY T3.3 - Mass transit systems should be implemented as soon as warranted by new populations.

PUBLIC FACILITIES

PROVIDE SUFFICIENT PUBLIC FACILITIES AND SERVICES.

OBJECTIVE P1 - PROVIDE ADEQUATE FIRE PROTECTION THROUGH THE COMBINED EFFORTS OF THE PUBLIC AND PRIVATE SECTORS.

POLICY P1.1 - Encourage the installation of fire detection and suppression devices.

POLICY P1.2 - Maintain mutual-aid agreements between Grandview, Kansas City and Lee's Summit.